

**To: The New Mexico Environment Department, Air Quality Bureau**

**Greetings, members of the committee, and my fellow citizens!**

**My name is Ford Stone.**

**I am a 40 year resident of Carlsbad.**

**I respectfully rise in opposition to proposed changes to increase the amounts allowed to be released of VOLATILE ORGANIC COMPOUNDS — "VOCs" — from area oil and gas operations.**

**It has been clearly established that exposure of VOCs in the atmosphere to sunlight forms the highly reactive form of oxygen known as O<sub>3</sub> or ozone.**

**A recent study — "Links between air pollution and COVID-19 in England" — confirms that air pollutants — among those mentioned, ozone — measurably worsens Covid infectivity and outcomes. (I include link and citation below.)**

**Data from the New Mexico Department of Health indicate that Carlsbad and Eddy County are a "local hotspot" for Covid-19.**

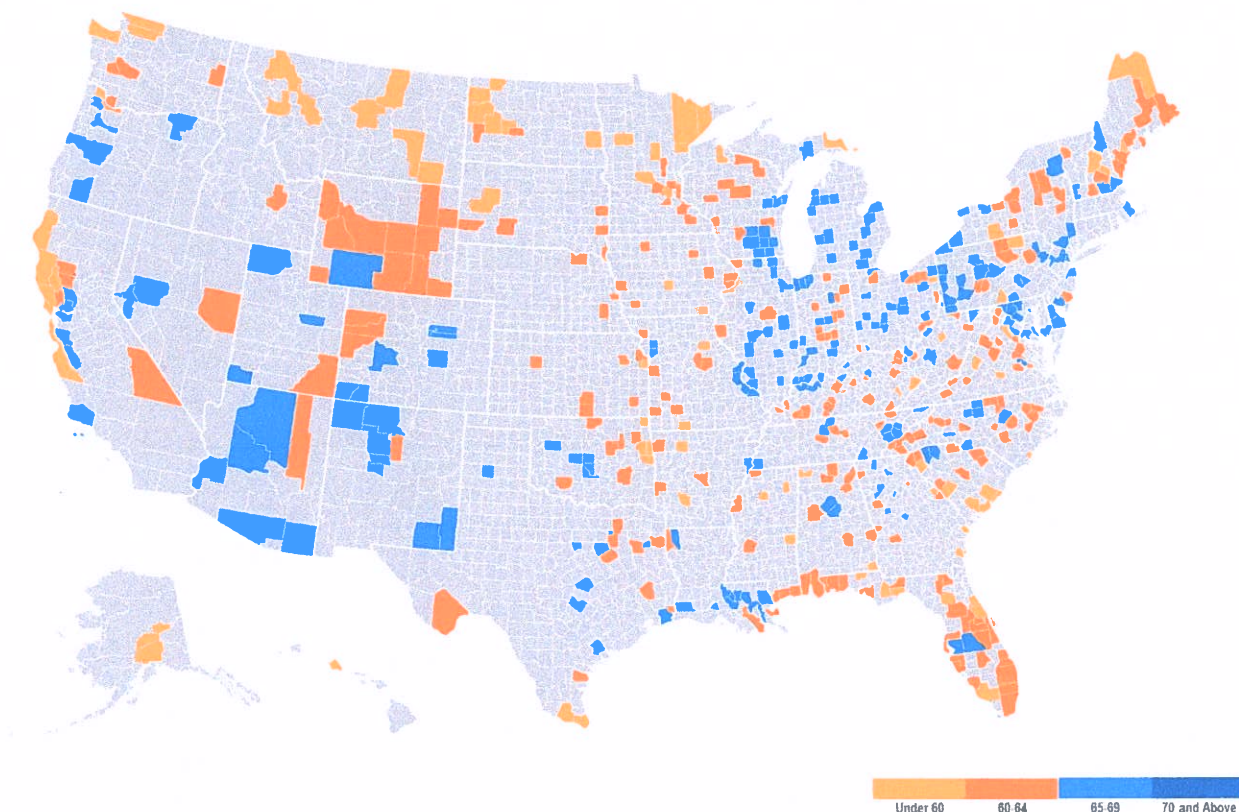
**If the findings of the cited paper are correct, it would not be unwarranted to suspect that both the number of cases of Covid-19 and their severity and lethality that we have experienced are due in part to the high concentrations of ozone documented to be present in our air. The operant mechanism would seem to be the exacerbated increase in inflammation of patients' airways due to exposure to this "ground level" ozone.**

Admittedly, although correlation does not in itself prove causation, it can be a vivid red flag that there may be an underlying causative agent. Indeed this was true when Dr. John Snow discovered a strong correlation between London residents' cases of cholera and their use of well water from a specific location in that city, leading to the discovery that a bacterium, *Vibrio cholerae*, was that causative agent.

The increased release of toxic Volatile Organic Compounds, which would occur if you allow requested O&G industry variances, would have an additionally deleterious effect on the health of Carlsbad and surrounding Permian Basin residents, who already suffer the consequences of living in one of the worst polluted areas in the nation as far as ozone emissions are concerned. Please see map below:

### 2017 Air Quality

2015-2017 Ozone Level (parts per billion)



**(Although the data displayed on the map date from 2017, there is little to suggest that things are any better now.)**

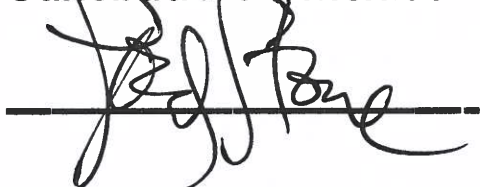
**These requests for relaxation of clearly established pollution emissions standards in a time of heightened vulnerability to Covid-19 seems to me to be in direct contradiction to your department's official mandate: "To protect the public health of New Mexicans by preventing the deterioration of air quality".**

**In keeping with the existing legislative mandates clearly established to limit further exposure of our fellow citizens to noxious chemicals, I most strongly urge the committee to deny any requests for alterations in current standards that would have the effect of further releasing, contaminating, and exposing our citizenry to Volatile Organic Compounds and, inevitably, to increased amounts of ground level ozone.**

**Thank you for the opportunity to voice my opinion.**

**Ford Stone**

**Carlsbad New Mexico**

A handwritten signature in black ink, appearing to read 'Ford Stone', is written over a solid horizontal line.

**<https://reader.elsevier.com/reader/sd/pii/S0269749120365489>**

**Marco Travaglio, Yizhou Yu, Rebeka Popovic, Liza Selley, Nuno Santos Leal, Luis Miguel Martins,  
Links between air pollution and COVID-19 in England,**

Environmental Pollution,

Volume 268, Part A,

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115859,

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(<https://www.sciencedirect.com/science/article/pii/S0269749120365489>)

**Abstract:** In December 2019, a novel disease, coronavirus disease 19 (COVID-19), emerged in Wuhan, People's Republic of China. COVID-19 is caused by a novel coronavirus (SARS-CoV-2) presumed to have jumped species from another mammal to humans. This virus has caused a rapidly spreading global pandemic. To date, over 300,000 cases of COVID-19 have been reported in England and over 40,000 patients have died. While progress has been achieved in managing this disease, the factors in addition to age that affect the severity and mortality of COVID-19 have not been clearly identified. Recent studies of COVID-19 in several countries identified links between air pollution and death rates. Here, we explored potential links between major fossil fuel-related air pollutants and SARS-CoV-2 mortality in England. We compared current SARS-CoV-2 cases and deaths from public databases to both regional and subregional air pollution data monitored at multiple sites across England. After controlling for population density, age and median income, we show positive relationships between air pollutant concentrations, particularly nitrogen oxides, and COVID-19 mortality and infectivity. Using detailed UK Biobank data, we further show that PM<sub>2.5</sub> was a major contributor to COVID-19 cases in England, as an increase of 1 m<sup>3</sup> in the long-term average of PM<sub>2.5</sub> was associated with a 12% increase in COVID-19

**cases. The relationship between air pollution and COVID-19 withstands variations in the temporal scale of assessments (single-year vs 5-year average) and remains significant after adjusting for socioeconomic, demographic and health-related variables. We conclude that a small increase in air pollution leads to a large increase in the COVID-19 infectivity and mortality rate in England. This study provides a framework to guide both health and emissions policies in countries affected by this pandemic.**

**Keywords: SARS-CoV-2; COVID-19; Air pollution; Nitrogen oxides; Ozone; PM2.5; PM10; Mortality**